

CLAIMS

1. A method comprising:
generating a monochromatic halftone bit map of a print; and
5 applying a bit map filter to the monochromatic halftone bit map to generate a filtered bit map.
2. The method of claim 1, further comprising generating the filtered bit to be used by a halftone printing device to reduce a number of ink dots on a print.
3. The method of claim 1, wherein the monochromatic halftone bit map is a first monochromatic halftone bit map corresponding to a first colorant, the method further comprising:
generating a second monochromatic halftone bit map of the print, the second
15 monochromatic halftone bit map corresponding to a second colorant; and
applying the bit map filter to the second monochromatic halftone bit map.
4. The method of claim 1, further comprising printing a colorant of the print on a substrate according to the filtered bit map.
5. The method of claim 1, wherein applying the filter comprises:
comparing a target glyph to a subset of bits in the monochromatic halftone bit map; and
replacing the subset of bits with a thinned glyph if the target glyph matches the
25 subset of bits.
6. The method of claim 5, further comprising:
passing the target glyph over the monochromatic halftone bit map;
comparing the target glyph to a number of subsets of bits; and
30 replacing a particular subset of bits with the thinned glyph whenever the target glyph matches the particular subset of bits.

7. The method of claim 5, the method further comprising:
comparing a second target glyph to a second subset of bits in the monochromatic
halftone bit map; and

5 replacing the second subset of bits with a second thinned glyph if the second
target glyph matches the second subset of bits.

8. The method of claim 1, further comprising detecting an edge of the print and
ensuring that a bit corresponding to the edge is not changed by a thinned glyph.

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9. The method of claim 5, wherein the target glyph includes ON-bits and the thinned
glyph includes ON-bits and OFF-bits.

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10. The method of claim 9, wherein the target glyph includes five ON-bits forming a
plus shape and the thinned glyph includes four ON-bits and one OFF-bit.

11. The method of claim 10, wherein thinned glyph forms a plus shape, the OFF-bit
of the thinned glyph being in the center of the four ON-bits of the thinned glyph.

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12. The method of claim 9, wherein the target glyph includes three ON-bits and the
thinned glyph includes two ON-bits and one OFF-bit, the OFF-bit being located between
the two ON-bits in the thinned glyph.

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13. The method of claim 9, wherein the ON-bits indicate the presence of ink and the
OFF-bits indicate the absence of ink.

14. The method of claim 9, wherein the ON-bits indicate the presence of a first
amount of ink and the OFF-bits indicate the presence of a second amount of ink.

15. The method of claim 1, further comprising applying a mask prior to applying the filter, the mask defining areas of the monochromatic halftone bit map to which the filter is to be applied.

5 16. The method of claim 1, wherein applying the bit map filter begins prior to finalizing the generating of the monochromatic halftone bit map.

17. The method of claim 1, wherein generating the monochromatic halftone bit map of the print includes converting a number of halftone cells into the monochromatic
10 halftone bit map, each halftone cell including a number of points that are selectively turned on to model a continuous tone pixel.

18. The method of claim 1, wherein generating the monochromatic halftone bit map of the print includes a screening process that does not make use of halftone cells.

15 19. The method of claim 4, further comprising examining the substrate and determining whether it is acceptable.

20. A method comprising:
20 comparing a target glyph to a subset of bits within a halftone bit map; and
replacing the subset of bits within the halftone bit map with a thinned glyph if the target glyph matches the subset of bits.

21. The method of claim 20, further comprising:
25 passing the target glyph over the halftone bit map;
comparing the target glyph to a number of subsets of bits; and
creating a filtered halftone bit map by replacing a particular subset of bits with the thinned glyph whenever the target glyph matches the particular subset of bits.

30 22. The method of claim 21, further comprising printing a print on a substrate according to the filtered halftone bit map.

23. The method of claim 22, further comprising examining the substrate and re-defining the target glyph and thinned glyph if the substrate appears unacceptable.

5 24. The method of claim 23, further comprising:
passing the re-defined target glyph over the halftone bit map;
comparing the re-defined target glyph to the number of subsets of bits; and
creating a second filtered halftone bit map by replacing a particular subset of bits
with the re-defined thinned glyph whenever the re-defined target glyph matches the
10 particular subset of bits.

25. A computer readable medium carrying program code that, when executed:
generates a monochromatic halftone bit map of a print; and
applies a bit map filter to the monochromatic halftone bit map to generate a
15 filtered bit map.

26. The computer readable medium of claim 25, wherein upon execution, the
program code applies the bit map filter by:
passing the target glyph over the monochromatic halftone bit map;
20 comparing the target glyph to a number of subsets of bits; and
replacing a particular subset of bits with the thinned glyph whenever the target
glyph matches the particular subset of bits.

27. A computer readable medium carrying program code that, when executed:
25 compares a target glyph to a subset of bits within a halftone bit map; and
replaces the subset of bits within the halftone bit map with a thinned glyph if the
target glyph matches the subset of bits.

28. A system comprising:
30 a memory that stores a monochromatic halftone bit map; and

a processor coupled to the memory that applies a bit map filter to the monochromatic halftone bit map to generate a filtered bit map.

29. The system of claim 28, wherein the memory stores a target glyph and a thinned glyph, and wherein the processor applies the bit map filter by:

passing the target glyph over the monochromatic halftone bit map;

comparing the target glyph to a number of subsets of bits; and

replacing a particular subset of bits with the thinned glyph whenever the target glyph matches the particular subset of bits.

30. The system of claim 28, wherein the system is a printer.

31. The system of claim 30, wherein the printer is an inkjet printer.

32. The system of claim 28, wherein the system is coupled to a printer.

33. The system of claim 32, wherein the printer is an inkjet printer.

34. A system comprising:

a memory that stores a halftone bit map, a target glyph and a thinned glyph; and

a processor coupled to the memory that compares the target glyph to a subset of bits within the bit map, and replaces the subset of bits within the bit map with the thinned glyph if the target glyph matches the subset of bits.

35. The system of claim 34, wherein the system is a printer.

36. The system of claim 35, wherein the printer is an inkjet printer.

37. The system of claim 34, wherein the system is coupled to a printer.

38. The system of claim 37, wherein the printer is an inkjet printer.